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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,352	06/28/2001	Robert Baumgartner	P01,0062	6267
26574	7590	12/08/2004	EXAMINER	
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			KNOLL, CLIFFORD H	
			ART UNIT	PAPER NUMBER
			2112	

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,352

Applicant(s)

BAUMGARTNER ET AL.

Examiner

Clifford H Knoll

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/10/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 13-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to communication filed 9/10/04. Currently claims 1-18 are pending, with claims 13-18 withdrawn. Thus, this Office Action treats claims 1-12.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

1. *Claims 1, 2, 4-5, and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Lagoy (US 4918645).*

Regarding claim 1, Lagoy discloses parallel signal lines to which a plurality of assemblies can be connected (e.g., col.5, lines 1-7), non-transparent data bus driver and controller (e.g., Figure 5, "72", "66"), whereby a sub-number of signal lines represent data lines and control lines for controlling (e.g., col.5, lines 11-14), and the clock generator (e.g., Figure 5, "BCLK", "SCLK"), and signals to be transmitted from and to the data and control lines are accepted during a clock pulse (e.g., col.7, lines 52-53, "Cas*"), and are emitted during a following clock pulse (e.g., col.7, lines 58-60).

Regarding claim 2, Lagoy also discloses the bus frequency of at least 20 MHz (e.g., col.4, lines 43-49, "CCLK").

Regarding claim 4, Lagoy also discloses 32 data lines (e.g., col.5, line 4).

Regarding claim 5, Lagoy also discloses decision lines for deciding which of said plurality of assemblies connected to said parallel signal lines has access priority, with non-clocked open-drain outputs connected forming a wired-or logic (e.g., col. 4, lines 59-62).

Regarding claim 11, Lagoy discloses a processor (e.g., Figure 1).

Regarding claim 12, Lagoy discloses multibus compatibility (e.g., col. 3, lines 51-56).

Claim Rejections - 35 USC § 103

2. *Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lagoy in view of Harrison (US 5337411).*

Regarding claim 3, Lagoy is silent on a frequency of 40 MHz, however this feature is disclosed by Harrison. Harrison discloses a 40 MHz bus frequency in a Multibus system (e.g., col.3, lines 56-59). It would be obvious to combine Harrison with Lagoy because Harrison teaches his disclosure in the context of a Multibus II system (e.g., col.1, lines 16-29) and further discloses the advantages of increasing clock frequency in a bus system such as the system of Lagoy (e.g., col.3, lines 50-54). Therefore it would be obvious to one of ordinary skill in the art to combine Harrison with Lagoy at the time the invention was made.

3. *Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lagoy in view of Alnuweiri (US 5572687).*

Regarding claim 6, Lagoy is silent on the particular means for generating the auxiliary clock with a lower frequency; however this is disclosed by Alnuweiri (US 5572687). Alnuweiri discloses the auxiliary clock pulse for driving the decision lines (e.g., col. 9, lines 59-64). It would be obvious to combine Alnuweiri with Lagoy, because Alnuweiri teaches an improved method of arbitration which would improve the capabilities of a system employing a bus arbitration scheme, such as the system of Lagoy. Therefore, it would have been obvious to one of ordinary skill in the art to combine Alnuweiri with Lagoy to obtain the claimed invention.

Regarding claim 7, Lagoy fails to disclose a frequency divider; however Alnuweiri discloses a frequency divider (e.g., col. 9, lines 59-64).

4. *Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lagoy in view of widely known design techniques, as evidenced by Ammar (Understanding Advanced Bus-Interface Products).*

Regarding claim 8, Lagoy neglects to mention implementational details of logic types used; however, Examiner takes Official Notice that low voltage TTL drivers are ubiquitous in the industry for drivers, as evidenced by Ammar. Ammar discloses that low voltage TTL drivers (e.g., p. 2). It would have been obvious to combine low voltage TTL drivers with Lagoy, because the use of low voltage TTL drivers is widely known and

ubiquitously applied in the industry. Therefore it would have been obvious to one of ordinary skill in the art to combine Ammar with Lagoy to obtain the claimed invention.

5. *Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lagoy in view of widely known design techniques, as evidenced by Appelbaum (US 5758188).*

Regarding claims 9 and 10, Lagoy neglects to mention implementational details of bus length; however extending buses to at least 50 cm is widely known, as evidenced by Appelbaum. Appelbaum discloses a bus having an extent of at least 50 cm (col. 2, lines 59-63). It would have been obvious to combine design techniques with Lagoy because it is desirable to extend buses adequate lengths to encompass the requirements of the controllers that attach to it. Therefore it would have been obvious to one of ordinary skill in the art to combine standard bus design techniques with Lagoy to obtain the claimed invention.

Response to Arguments

Applicant's arguments filed 9/10/04 have been fully considered but they are not persuasive.

Regarding claim 1, Applicant argues that Lagoy's "further clock pulse" is not disclosed by Lagoy's latch because "latch 72 is not clocked. Thus, the buffer 72 of Lagoy is not covered by the interpretation of 'non-transparent' of the Examiner" (p. 6);

however, the interpretation of “a further clock pulse” as recited must be interpreted rather broadly absent additional recitation that might distinguish from Lagoy. The latch control signal (e.g., Fig. 5, “DENO”) is asserted in synchronization with the other timing signals of the disclosure, according to the internal availability of data, responsive to (i.e., “following”) the assertion of the CAS pulse. The recitation fails to support a distinction.

Applicant further argues that Examiner has misinterpreted the use of “transparent” in the claims; however, Applicant supports this argument by relying on the initial argument, rebutted *supra*, that the latch does not receive a “clock pulse”. If the latch control signal is properly interpreted as “a following clock pulse”, then the “non-transparent buffer” as described by Applicant (“different signals are applied to the input side and to the output side of the buffer”) is anticipated by Lagoy. In fact, such a description describes *any* tri-stated latch.

Applicant notes that the invention as shown in Figure 4 shows “different data words ... simultaneously transmitted from the transmitter assembly S to the data bus driver and from the data bus driver of the transmitter assembly S to the data bus driver of the receiver assembly” (p. 7); however, any distinction, in particular any distinction accorded use of “different” and “simultaneously”, fails to receive support in the recitation. Without adequate support for these possibly distinguishing features, the invention as claimed is deemed anticipated by Lagoy.

Regarding the 103 rejection, Applicant argues that the rejection fails on the basis of inadequacies of Lagoy; however these arguments have been treated *supra*.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 571-272-3636. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2112

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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